

United States Patent and Trademark Office

NI

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/521,530	01/14/2005	Uwe Hendrich	, PC10449US	8766	
23122 RATNERPRES	7590 09/21/2007 STIA		EXAM	EXAMINER	
P O BOX 980		BURCH, MELODY M			
VALLEY FOR	GE, PA 19482-0980		ART UNIT	PAPER NUMBER	
			3683		
			MAIL DATE	DELIVERY MODE	
•			09/21/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
	10/521,530	HENDRICH ET AL.	,
Office Action Summary	Examiner	Art Unit	
	Melody M. Burch	3683	
The MAILING DATE of this communication ap	pears on the cover sheet w	ith the correspondence add	iress
Period for Reply	V 10 057 70 5VDIDE - 1	AONTHAN OR THERTY), DAVO
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNI 136(a). In no event, however, may a will apply and will expire SIX (6) MOI e, cause the application to become A	CATION. reply be timely filed NTHS from the mailing date of this col BANDONED (35 U.S.C. § 133).	
Status			
1)⊠ Responsive to communication(s) filed on 16 J	uly 2007.		
	s action is non-final.		
3) Since this application is in condition for allowa	ince except for formal mat	ters, prosecution as to the	merits is
closed in accordance with the practice under	Ex parte Quayle, 1935 C.[D. 11, 453 O.G. 213.	
Disposition of Claims			
4)⊠ Claim(s) <u>21-38</u> is/are pending in the application	on.		
4a) Of the above claim(s) is/are withdra	wn from consideration.	•	
5) Claim(s) is/are allowed.			
6) Claim(s) <u>21-28,30-35,37 and 38</u> is/are rejecte	d.		
7) Claim(s) <u>29 and 36</u> is/are objected to.	•		
8) Claim(s) are subject to restriction and/o	or election requirement.	•	
Application Papers			
9)⊠ The specification is objected to by the Examine	er.		
10) The drawing(s) filed on is/are: a) □ acc	, <u> </u>	•	
Applicant may not request that any objection to the	• • • • • • • • • • • • • • • • • • • •	* *	
Replacement drawing sheet(s) including the correct	•	- ' ' '	` '
11) The oath or declaration is objected to by the E	xaminer. Note the attache	a Office Action of form P i	U-152. _.
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C.	§ 119(a)-(d) or (f).	
a) ☐ All b) ☐ Some * c) ☐ None of:			
1. Certified copies of the priority documen		Annlication No	
2. Certified copies of the priority documen3. Copies of the certified copies of the priority		· ·	Stane
application from the International Burea	•	received in this realistian	oluge
* See the attached detailed Office action for a list	, , , , , , , , , , , , , , , , , , , ,	t received.	
Attachment(s)			•
1) Notice of References Cited (PTO-892)		Summary (PTO-413)	
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 		(s)/Mail Date Informal Patent Application	
Paper No(s)/Mail Date	6) Other:		

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/16/07 has been entered.

Specification

2. The abstract of the disclosure is objected to because the word "attachment" at the end of the abstract should be removed. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 21-27 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4607728 to Kobayashi.

Re: claim 21-27. Kobayashi shows in figure 3 a brake holder 1 of a floating-caliper disc brake comprising axially extending holder arms 1a and an opening between the holder arms, the brake holder additionally comprising a brake pad 7a radially

mounted in the opening, the opening between the holder arms having a minimum tangential width shown in the area of the end of the lead line of number 3 that is greater than the maximum tangential width of the brake pad with the holder arms being free of any tangential obstructions radially confining any portion of the brake pad, the brake holder additionally comprising at least one brake pad guide spring 6 arranged on one of the holder arms between the brake holder and the brake pad, the brake pad guide spring being locked at the brake holder in both radial and axial directions by at least one fixing clamp 11d and 12, respectively, the guide spring comprising a cantilevered spring arm 13,15 that terminates tangentially inwardly over the brake pad and bears radially inwardly and tangentially inwardly against the brake pad under a spring bias.

Page 3

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of US Patent 5125482 to Negishi.

Kobayashi lacks the limitation of the spring arm abutting on an inclined abutment surface.

Negishi teaches in figure 2 the limitation of a spring arm 41 abutting on an inclined abutment surface shown below 42 of a brake pad 18.

Application/Control Number: 10/521,530

Art Unit: 3683

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the abutment surface of the brake pad of Kobayashi to have been inclined, as taught by Negishi, in order to provide a means limiting the tangential movement of the spring arm toward the center of the brake disk to provide a stronger biasing force.

7. Claim 30-34, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of JP-57204335 (JP'335).

Kobayashi shows in figure 3 a brake holder 1 of a floating caliper disc brake with an axially extending holder arm 1a at which an associated brake pad 7a is arranged on a side of a brake disc and mountable radially in the brake holder, comprising at least one brake pad guide spring 6 arranged on the holder arm between the brake holder and the brake pad, wherein the brake pad guide spring is locked at the brake holder in both radial and axial directions by means of at least one fixing clamp 12 and 11d, the brake pad guide spring comprising a cantilevered spring arm having a first section shown in the area of the end of the lead line of number 3 that extends along the contour of the holder arm, and a second section 13,15 that bends tangentially inwardly relative to the first section to form an inverted spring arm with the first section, the second section terminating tangentially inwardly from the holder arm and being deflectable tangentially outwardly against the spring bias toward the holder arm to facilitate mounting of the brake pad onto the brake holder in a generally radial direction.

Kobayashi is silent with respect to the inverted spring arm shape specifically being V-shaped.

Application/Control Number: 10/521,530

Art Unit: 3683

JP'335 teaches in figure 2 in the area of the lead arrow of number 15 the use of an inverted spring arm being V-shaped.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the inverted spring arm to have been V-shaped, as taught by JP'335, in order to provide a means of achieving a certain level of bias against the brake pad surface.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of JP'335, as applied to claim 30, and further in view of US Patent 5125482 to Negishi.

Kobayashi, as modified, lacks the limitation of the spring arm abutting on an inclined abutment surface.

Negishi teaches in figure 2 the limitation of a spring arm 41 abutting on an inclined abutment surface shown below 42 of a brake pad 18.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the abutment surface of the brake pad of Kobayashi, as modified, to have been inclined, as taught by Negishi, in order to provide a means limiting the tangential movement of the spring arm toward the center of the brake disk to provide a stronger biasing force and a force that is less subject to substantial change due to substantial displacement of the spring arm end.

Art Unit: 3683

Allowable Subject Matter

9. Claims 29 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/521,530

Art Unit: 3683

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb

September 12, 2007

Melody M. Burch
Primary Examiner
Art Unit 3683